

Figure 1

>huGST-3 (from LifeSeq EST #2617407, ORF is highlighted in capitals)
gaattccattgtgttgggtacggaagacgacagaagggttagaggagaaaagcgcacatgg
cccggttagcagtgagcctctcaaaagcagcaggggaagcccaagccacaaggtcttcc
acttcagcacaatgctactgcctaaaaaaATGAAGCTCCTGCTGTTTCTGGTTTCCCA
GATGGCCATCTTGGCTCTATTCTTCCACATGTACAGCCACAACATCAGCTCCCTGTCT
ATGAAGGCACAGCCCGAGCGCATGCACGTGCTGGTTCTGTCTTCCTGGCGCTCTGGCT
CTTCTTTTGTGGGGCAGCTTTTGGGGCAGCACCCAGATGTTTTCTACCTGATGGAGCC
CGCCTGGCACGTGTGGATGACCTTCAAGCAGAGCACCGCCTGGATGCTGCACATGGCT
GTGCGGGATCTGATACGGGCCGTCTTCTTGTGCGACATGAGCGTCTTTGATGCCTACA
TGGAACCTGGTCCCCGGAGACAGTCCAGCCTCTTTCAGTGGGAGAACAGCCGGGGCCCT
GTGTTCTGCACCTGCCTGTGACATCATCCCAAGATGAAATCATCCCCGGGGCTCAC
TGCAGGCTCCTGTGCAGTCAACAGCCCTTTGAGGTGGTGGAGAAGGCCTGCCGCTCCT
ACAGCCACGTGGTGTCTCAAGGAGGTGCGCTTCTTCAACCTGCAGTCCCTCTACCCGCT
GCTGAAAGACCCCTCCCTCAACCTGCATATCGTGACCTGGTCCGGGACCCCGGGCC
GTGTTCCGTTCCCGAGAACGCACAAAGGGAGATCTCATGATTGACAGTCGCATTGTGA
TGGGGCAGCATGAGCAAAACTCAAGAAGGAGGACCAACCCTACTATGTGATGCAGGT
CATCTGCCAAAGCCAGCTGGAGATCTACAAGACCATCCAGTCCTTGCCCAAGGCCCTG
CAGGAACGCTACCTGCTTGTGCGCTATGAGGACCTGGCTCGAGCCCCTGTGGCCCA
CTTCCCGAATGTATGAATTCTGTTGGGATTGGAATTCTTGCCCCATCTTCAGACCTGGGT
GCATAACATCACCCGAGGCAAGGGCATGGGTGACCACGCTTTCACACAAATGCCAGG
GATGCCCTTAATGTCTCCAGGCTTGGCGCTGGTCTTTGCCCTATGAAAAGGTTTCTC
GACTTCAGAAAGCCTGTGGCGATGCCATGAATTTGCTGGGCTACCGCCACGTGAGATC
TGAACAAGAACAGAGAAACCTGTTGCTGGATCTTCTGTCTACCTGGACTGTCCCTGAG
CAAATCCACTAAgagggttgagaaggctttgctgccacctggtgtcagcctcagtcac
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ggtatcacactgagtggtgagttgtgtccacacgtgctcaagcagaaggacttttgtgt
ccatgcttgtgtctagaaaacagactggggaaccttatgtgagcagcacatcccacca
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cagcattttccacagagatgcgaattctgagcccttgaggttcccaatgggattcaag
gaaggaagtgggaacaagggttggtatgcctacttatgagcttgaccatacagctatcgg
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tgcttgggcttgatttgaatatcatttccctttgcattttccattacatagaaaact
ttgacctgtgaaacttgccatctgttaataactaaaattcccaaataagggttctgttta
gaatgtccctttttatgcttcttaattattagcagtaaatgttcatttttatgggatac
ctaaaaaaaaaaa

09216325.03204

Figure 2

>huGST-3 (Full length EST Lifeseq #2617407)

MLLPKKMKLLLFLVSQMAILALFFHMYSHNISSLMSKAQPERMHVLVLSSWSRGSSFV
GQLFGQHPDVFYLMPEPAWHVWMTFKQSTAWMLHMAVRDLIRAVFLCDMSVFDAYMEPG
PRRQSSLFQWENSRALCSAPACDIIPQDEIIPRAHCRLLCSHNPLRWWKRPCRSHV
VLKEVRFFNLQVPIPAERPLLNLHIVHLVLDPRSVFRSRERTKGDLMIDSRIVMGQH
EQKLKKEDQPYVVMQVICQSQLEIYKTIQSLPKALQERYLLVRYEDLARAPVAQTSRM
YEFVGLFLPHLQTWVHNI TRGKGMGDHAFHTNARDALNVSQAWRWSLPYEKVSRLQK
ACGDAMNLLGYRHVRSEQEQRNLLDLLSTWTVPEQIH

Figure 3

>msGST-3 from mouse C57Bl/6 BAC clone #87(b15) (ORF is highlighted as capitals)

gggcatctaacttacacttggtcagacaagacaagcttttgcctacaaaggccacact
ctgtcaggggtgtagaaaggtgtggggtgtggcagaactccctatagtgattaaatgt
gctgggtaggatattctcggtgggtttgatggatgagaaagcccagaggggtgagtttta
aagacttgtaacatagaatgcagtgatccaattaagagccagaattactttgcagagg
gatctggacaaataacttgcaggaatgtttttgggtttttgtttgtttgtttgttt
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aactcagccccatccccctctgcttgctctttcaaggtcttctccttcttccgcaggAT
GATGCTGTTGAAGAAAGGGAGGCTGCTGATGTTCTTGGGTTCCTCAGGTCATCGTTGTA
GCTCTCTTCATCCATATGTCCGTCCACAGACACCTTTCCAGAGGGAGGAGTCCAGGA
GGCCCGTGCATGTGCTGGTGCTGTCTTCTGGCGGTCAGGATCCTCTTTTGTGGGACA
GCTTTTCGGGCAGCACCCGGATGTGTTCTACCTGATGGAGCCTGCCTGGCATGTGTGG
ATGACTTTCACCAGCAGCACAGCCTGGAAGCTGCACATGGCTGTGCGGGATCTTCTGC
GTTCCGTCTTCTGTGTGACATGAGCGTCTTTGATGCCTACATGAACCCAGGCCCCCG
GAAACAGTCCAGCCTCTTCCAGTGGGAGCAAAGCCGGGCCCTGTGCTCAGCGCCTGTG
TGTGACTTCTTCCCTGCCCACGAGATCAGCTCACCCAAGCACTGCAAGCTGCTCTGCG
GTCAGCAGCCCTTTGATATGGTGGAGAAGGCCTGCCGCTCTCACGGCTTCGTGGTACT
CAAGGAGGTGCGTTTTCTCAGCCTGCAGGCCCTCTATCCACTACTCACGGACCCTTCC
CTCAACCTGCACGTCGTGCACCTGGTCCGAGACCCCCGGGCCGTGTTCCGATCCCGGG
AGCACACCACCATAGAAGTATGGTTGACAGTCATATTGTGCTAGGGCAGCATTTGGA
AACGATCAAGGAGGAAGACCAGCCCTATTATGCCATGAAGATCATCTGCAAAAGCCAG
GTGGACATAGTCAAGGCCATCCAAACCCTCCCTGAAGCTCTGCAGCAGCGCTACCTGT
TCCTGAGGTATGAGGACCTGGTTTCGGGCACCCCTGGCCCAGACGACCAGACTATATAA
ATTTGTGGGGTTGGATTTTTTGGCCACCTCCAAACATGGGTTTACAATGTCACCCGC
GGCAAGGGCATGGGTGAGCATGCCTTCCATACTAACGCCAGGAACGCCCTCAACGTCT
CTCAGGCGTGGCGTTGGTCCTTACCTTACGAAAAGGTTTCCAGCTTCAAGATGCCTG
CGGTGAGGCTATGGATTTGCTGGGATACCTCCAGGTGAGATCTCAACAAGAACAAGGC
AACCTGTCCCTGGATCTTCTGTCTCTCCTCCCATATCTTGGGGCAGGTCTTCCGAGAAG
GTTAAggaggtctgtctgcaccccttggttccagccttagtcaccattaaacgcacag
aagccttaagggtataaacaaactgagtgccccctttctcctcagccccaagcagagggg
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atcttttctaag

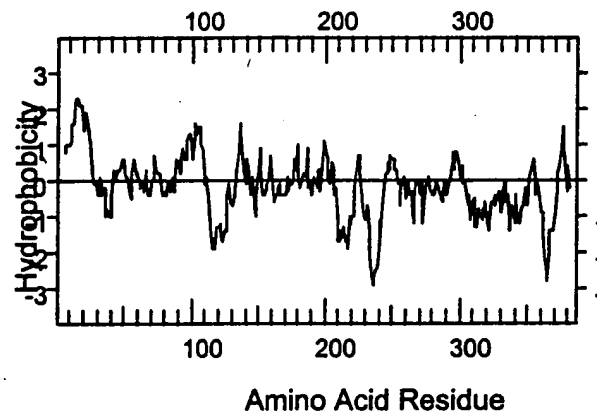
09816825.032204

Figure 4

>msGST-3 translation of ORF from mouse C57Bl/6 BAC clone #87(b15)
MMLLKKGRLLMFLGSQVIVVALFIHMSVHRHLSQREESRRPVHVLVLSSWRSGSSFVG
QLFGQHPDVFYLMPEAWHVWMTFTSSTAWKLHMAVRDLLRSVFLCDMSVFDAYMNP GP
RKQSSLFQWEQSRALCSAPVCDFFPAHEISSPKHCKLLCGQQPFDMVEKACRSHGFVV
LKEVRFLSLQALYPLLTDPSLNLHVHLVRDPRAVFRSREHTTIELMVDSHIVLGQHL
ETIKEEDQPYYAMKIIICKSQVDIVKAIQTLPEALQQRYLFLRYEDLVRAPLAQTTRLY
KFVGLDFLPHLQTWVYNVTRGKGMGQHAFHTNARNALNVSQAWRWSLPYEKVSQ LQDA
CGEAMDLLGYLQVRSQQEQGNLSLDLLSSSHILGQVFREG

051625.03201
T0220" 5239T650

Figure 5



09846825.0322001
T02220.5297850

Figure 6

106 134

HEC-GlcNAc6ST	SWRSGSSFVGO	LFGQHPDVET	METAVIR
GlcNAc6ST	TWRSGSSF	FGE LFNQNP	EEV EYIVIR
KSGal6ST	ITRSGSSFVGO	LFNCHLDVET	EEDLYIR
C6ST	TTRTGSSFVGE	FFNQQGN	EYLEEFLEWHIR

249 270

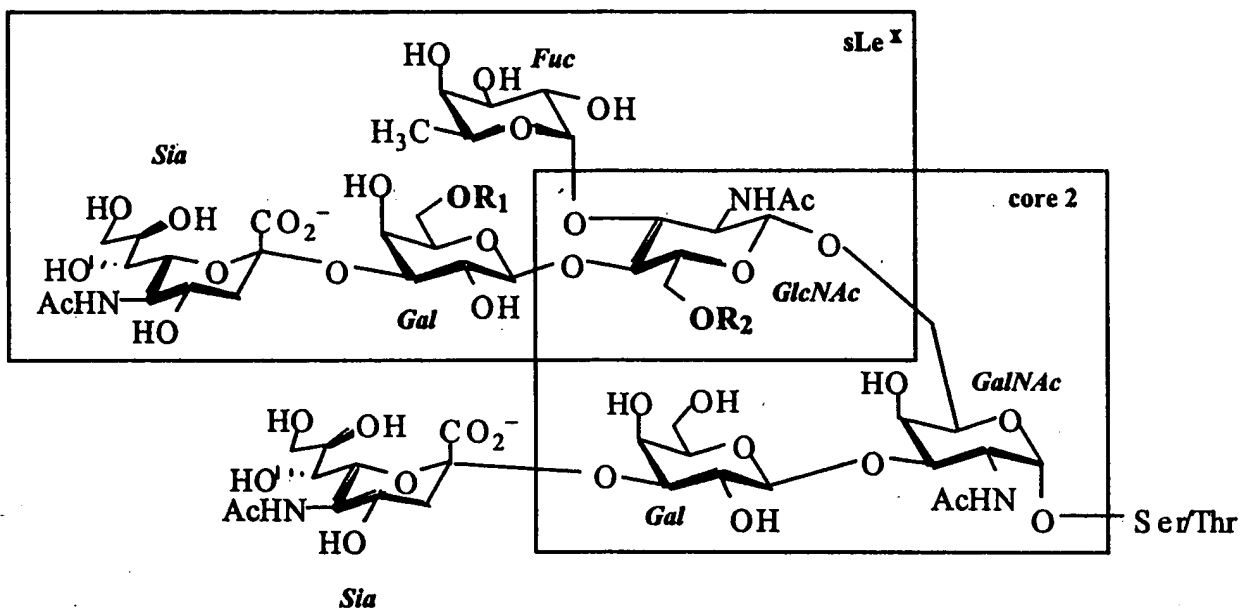
HEC-GlcNAc6ST	DPSLN	LHIVHLVRD	PRAVFRSP
GlcNAc6ST	DPALDLKVI	HLVRD	PRAVASSE
KSGal6ST	DPRNLKVLQ	LVRD	PRGILASE
C6ST	DPRLDLRVIQ	LVRD	PRAVLASE

320 339

HEC-GlcNAc6ST	PKALQERYL	LVRYED	LARAP
GlcNAc6ST	PDWLQGHY	LVRYED	LVGDE
KSGal6ST	PPWLKGGY	MLVRYED	LARNE
C6ST	PAWLGRGY	MLVRYED	VARGE

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Figure 7



R1 = H, R2 = SO₃⁻ : 6-sulfo sLe^x

R1 = SO₃⁻, R2 = H : 6'-sulfo sLe^x

R1 = R2 = SO₃⁻ : 6',6-disulfo sLe^x